

ABSTRACT OF THE DISCLOSURE

A plasma processing apparatus has coated surfaces opposing to a surface to be processed of a substrate, and includes electrodes adjacent to each other and a dielectric filled between the electrodes and covering the coated surfaces. The dielectric has first and second opposing surfaces. The plasma processing apparatus further includes a gas supply line having a gas supply opening provided on the first opposing surface and supplying a processing gas to the surface to be processed, and a gas exhaust line 16 having a gas exhaust opening provided on the second opposing surface and exhausting the processing gas supplied to the surface to be processed.